

an elongated fabric container having two ends and at least two seams, the container being formed by joining together at one of said at least two seams at least two cylindrical tubular sections to form a transversely oriented reinforced region along the length of the geotube, the transverse reinforced region being configured to provide structural support to the geotube container with a high resistance to mechanical damage; and

at least one ballast tube disposed on the inner surface of the container.

77. (New) The cylindrical geotube water barrier of claim 76, wherein the reinforced regions comprise anchoring straps.

REMARKS

Applicant expresses his appreciation to the Examiner for the recent Office Action. Prior to entry of this Amendment A, claims 1-44 were pending under examination. Claims 1-44 were rejected in the Office Action. After entry of this Amendment A, dependent claims 7, 9, 10, and 12 and independent claim 36 have been cancelled, and new claims 45-77 have been added, claims 45, 62, 73 and 76 being independent claims. Accordingly, claims 1-6, 8, 11, 13-35 and 37-77 are pending under examination. The number of independent claims has been increased by three (3) over the number previously paid for. The total number of claims has been increased by twenty-eight (28) over the number previously paid for. The fee (\$126) for the three extra independent claims and the fee (\$252) for

twenty-eight extra total claims are submitted herewith together with the fee (\$55) for a one month extension of time beyond the three months set for the period of response in the Office Action.

All pending claims are reproduced in an attachment at the end of this Amendment A for the convenience of the Examiner. The added claims do not present new matter as they find support in the original disclosure. Newly added claim 45 for example is supported at least at page 6, lines 13 - 19 and page 30, lines 3 - 16.

Objections to the Drawings

The drawings were objected to due to their lack of a feature required in claim 36, which has been canceled. Applicant therefore respectfully requests withdrawal of the objection to the drawings.

Rejections Under 35 U.S.C. § 112, second paragraph

In the Office Action, claims 1-5, 16-21, and 32 were rejected under 35 U.S.C. § 112, 2d paragraph, as indefinite. In claims 1 and 16, the phrase "capable of" was objected to as rendering each claim indefinite. Applicant has amended claims 1 and 16 to remove the objected phrase.

In claim 4, the phrase "by other means" was objected to as indefinite. Applicant has amended claim 4 to remove the objected phrase.

Claim 19 was amended to use the term "scour apron" consistent with accepted usage.

Claim 32 received an objection for lack of clarity. Applicant has amended claim 32 to provide the requisite clarity.

In view of the amendments to the claims noted above, applicant respectfully submits that claims 1-5, 16-21, and 32 are patentable under 35 U.S.C. § 112, 2d paragraph, and requests withdrawal of the objections to these claims in their amended formats presented herein.

Prior Art Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-5 Are Not Anticipated by Bradley

Claims 1-5 were rejected under 35 U.S.C. § 102(b) as anticipated by US Patent No. 5,902,070 to Bradley (hereinafter the "Bradley patent"). Pertinent to the present discussion, the Bradley patent discloses a tubular geotextile container with an impermeable inner liner.

Each of claims 1-5, as amended, requires at least two ballast tubes that are located within a first tubular-shaped container. The Bradley patent does not disclose a structure that includes at least two ballast tubes within a tubular container. Thus, claims 1-5 are patentable under 35 U.S.C. § 102(b) over Bradley.

Claim 3, as amended, requires at least two ballast tubes within a tubular container that includes an inner liner. The Bradley patent does not disclose a structure that includes at least two ballast tubes within a tubular container that

includes an inner liner. Thus, claim 3 is patentable under 35 U.S.C. § 102(b) over Bradley for this additional reason.

Claim 4, as amended, requires at least two ballast tubes within a tubular container wherein the ballast tubes contain fill material solids and the tubular container contains fill material solids in addition to the fill material solids that are within the ballast tubes. The Bradley patent does not disclose a structure that includes at least two ballast tubes within a tubular container wherein the ballast tubes contain fill material and the tubular container contains fill material solids in addition to the fill material solids that are within the ballast tubes. Thus, amended claim 4 is patentable under 35 U.S.C. § 102(b) over Bradley for this additional reason.

**Claims 6, 8 and 13-15 Are Not Obvious
Over Bradley in View of Holmberg**

Claims 6-10 and 13-15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bradley in view of US Patent No. 4,889,446 to Holmberg (the "Holmberg patent"). Claims 7, 9 and 10 were cancelled. Claims 6, 8 and 13-15, as amended, are not obvious over Bradley in view of Holmberg. Each of claims 6, 8 and 13-15, as amended, requires at least two ballast tubes that are located within a first tubular-shaped container. As noted above, the Bradley patent does not disclose a structure that includes at least two ballast tubes within a tubular container. The disclosure of the Holmberg patent fails to correct this deficiency in Bradley.

Holmberg shows an erosion control mat 20 that is formed of fabric that is sufficiently permeable to water so that gases resulting from decaying organic

matter trapped beneath the mat 20 can filter through the fabric. Elongated anchoring pockets 22 anchor the edges of the mat 20. The mat 20 is further kept in place by providing an elongated tubular stabilizer 24 disposed between a pair of smaller diameter elongated tubular stabilizers 26, (a.k.a. control pockets 26). The stabilizer tubular structures 24, 26 are located on top of the mat 20 and filled with ballast material that is preferably cementitious material. Holmberg fails to disclose any ballast tubes within a tubular container. Thus, claims 6, 8 and 13-15, as amended, are patentable under 35 U.S.C. § 103 over Bradley in view of Holmberg.

Each of claim 6, 8 and 13-15, as amended, requires at least a first cradle tube positioned adjacent the tubular shaped container. Bradley does not disclose the use of cradle tubes positioned adjacent a first continuous tubular shaped container. While Holmberg discloses the use of a control pocket 26 adjacent a tubular shaped stabilizer 24 wherein both the tubular shaped stabilizer 24 and the control pocket 26 are disposed atop an underlying mat 20 formed of water permeable geotextile material, such a disclosure fails to suggest to the skilled artisan to use a cradle tube adjacent a tubular shaped container that is not already disposed atop an underlying mat structure that is anchored by anchoring pockets 22. Nor is there is any suggestion in the art to combine the control pocket 26 of Holmberg with the container shown in Bradley. Only the hindsight provided by applicant's disclosure teaches the use of the cradle tube adjacent the tubular shaped container without the underlying mat structure that is anchored by anchoring pockets 22.

Accordingly, for the reasons stated above, applicant respectfully submits that claims 6, 8 and 13-15, as amended, are patentable under 35 U.S.C. § 103(a) over Bradley in view of Holmberg.

Claims 16-18 Are Not Anticipated by Dooleage

Claims 16-18 were rejected under 35 U.S.C. § 102(b) as anticipated by US Patent No. 5,125,767 to Dooleage (the "Dooleage patent"). Dooleage teaches a method and apparatus for making barriers using impermeable ballast tubes filled with water, not fill material solids.

Each of claims 16-18 requires an elongated container having a plurality of ballast tubes that contain fill material solids. Since the Dooleage patent only teaches the use of a liquid in its ballast tubes and does not teach or contemplate the use of solids within ballast tubes, there can be no anticipation of claims 16-18 by Dooleage. Applicant therefore respectfully submits that claims 16-18 are patentable under 35 U.S.C. § 102(b) over Dooleage.

Claim 35 Is Not Unpatentable as Obvious Over Dooleage in View of Bradley

Claim 35 was rejected under 35 U.S.C. §103(a) as unpatentable over Dooleage in view of Bradley. Claim 35 requires a first elongated tube formed of partially permeable geotextile material and having a substantially waterproof inner liner and containing ballast tubes that are generally semi-permeable and at least one ballast tube holds solid fill material therewithin.

As stated previously, Dooleage does not teach ballast tubes that are semi-permeable, and to the contrary teaches against such semi-permeability for ballast tubes. Dooleage already has an outer container 13 for the ballast tubes that can be permeable, and so Dooleage has no need for Bradley to again suggest that the outer container be permeable or semi-permeable. However, where ballast tubes are concerned, Dooleage teaches only the use of impermeable bags that are filled with a liquid, namely, water, not solid fill. Bradley fails to teach any ballast tubes at all, much less semi-permeable ballast tubes and thus fails to cure the noted deficiency in the Dooleage disclosure. Because Dooleage teaches against semi-permeable ballast tubes, the combined disclosures of Dooleage and Bradley fail to suggest to the person of ordinary skill to employ semi-permeable material for ballast tubes. Applicant therefore respectfully submits that claim 35 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Bradley for this reason.

Moreover, the combined disclosures of Dooleage and Bradley are further deficient in failing to suggest the use of fill solids (as in Bradley) in place of the liquid water used to fill the ballast tubes of Dooleage. The Dooleage patent only teaches the use of a liquid in its impermeable ballast tubes. Dooleage fails to suggest or contemplate the use of solids within ballast tubes. Bradley fails to correct this deficiency in Dooleage. Bradley does not suggest or disclose the use of ballast tubes within its container. Bradley merely teaches the use of solids in a container that lacks ballast tubes therein. Thus, Bradley does not suggest or contemplate the use of solids within ballast tubes. Absent this suggestion,

Bradley fails to correct the noted deficiency regarding solid fill in Dooleage's ballast tubes. Absent the hindsight of applicant's disclosure, there is no suggestion to the person of ordinary skill to replace the water in Dooleage's impermeable ballast tubes with solid fill material as in Bradley's geotextile container, which is not a ballast tube, much less a plurality of independent ballast tubes. Thus, Dooleage and Bradley cannot render claim 35 obvious to the person of ordinary skill. Applicant therefore respectfully submits that claim 35 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Bradley for this additional reason.

Additionally, claim 35 requires an inner liner made of waterproof fabric. Since the Dooleage ballast tubes already are impermeable, why would the person of ordinary skill combine a liner as in Bradley with the Dooleage outer tube? Only hindsight provided by applicant's disclosure would move the skilled artisan to such a combination. Accordingly, applicant respectfully submits that claim 35 is patentable under 35 U.S.C. §103(a) over Dooleage in view of Bradley for this additional reason.

Claims 37-43 Are Not Obvious Over Dooleage in View of Bradley

Claim 42 was rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Bradley. Claim 42 resembles claim 35 insofar as each requires a plurality of independent ballast tubes extending longitudinally within an elongated container, wherein each of the ballast tubes has fill material solids on its respective inside spaces. The inability of Dooleage and Bradley to render

claim 35 obvious to the person of ordinary skill regarding the use of fill material solids in the Dooleage ballast tubes thus applies equally to claim 42. Applicant therefore respectfully submits that claim 42 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Bradley for this same reason that is explained above for claim 35.

Each of claims 37-41 and 43 depends on claim 42, which is patentable under 35 U.S.C. §103(a) over Dooleage in view of Bradley for the reasons noted above. Thus, claims 37-41 and 43 are patentable under 35 U.S.C. §103(a) over Dooleage in view of Bradley for the same reasons that claim 42 is patentable over Dooleage in view of Bradley. Accordingly, applicant respectfully submits that claims 37-43 are patentable under 35 U.S.C. §103(a) over Dooleage in view of Bradley.

Moreover, each of claims 37-43 requires a plurality of longitudinally spaced reinforced regions along the length of the elongated container. While Bradley shows such regions, Dooleage avoids the need for such devices by using control pockets 26. Thus, absent the hindsight of applicant's disclosure, there is no suggestion to provide the reinforced regions of Bradley to the container of Dooleage. Claims 37-43 are therefore patentable under 35 U.S.C. § 103(a) over Dooleage in view of Bradley for this additional reason.

Claims 42 and 43 Are Not Obvious over Dooleage in View of Labora

Claims 42 and 43 were rejected under § 103(a) as unpatentable over Dooleage in view of Labora GB 1,487,986 (the "Labora patent"). Claim 42 is

directed to a tubular apparatus comprising an elongated fabric container having two ends, and a plurality of independent ballast tubes within the container and solid fill material within the ballast tubes. Claim 42 also requires a plurality of longitudinally spaced reinforcing regions along the length of the elongated container.

Dooleage teaches a cover 13 that contains ballast tubes in the form of liquid-filled bags without solid fill. Labora teaches a flexible envelope 1 filled with a solid material 2 such as sand and cement that is solidifiable after being injected under pressure. The Labora structure as shown in the drawings includes internal reinforcing members 4 that are fixed internally between opposing walls of the envelope 1. According to lines 86-89 of Labora, when not under load, these members 4 have a length that is less than the corresponding inside dimension of the expanded envelope 1. Labora fails to suggest or disclose using a plurality of independent ballast tubes inside an elongated fabric container. Instead of ballast tubes, the teachings of Labora are directed to a lattice-type structure that resembles the use of rebar, cemented in place. Thus, the skilled artisan is likely to view the cemented lattice teachings of Labora as incompatible with the liquid-filled ballast tube teachings of Dooleage. There is no suggestion to pick and choose elements of Labora to be combined in a particular way with other chosen elements of Dooleage in order to arrive at the apparatus of claims 42 and 43. Only by the hindsight provided by applicant's disclosure can the skilled artisan derive from Labora the idea of supplying solid fill material to the ballast tubes of Dooleage. Accordingly, applicant respectfully submits that absent the hindsight

provided by applicant's disclosure, Dooleage and Labora fail to render the subject matter of claims 42 and 43 obvious to the person of ordinary skill.

Moreover, as to reinforcing regions required by claims 42 and 43, even though Labora shows belt-like structures 6, 7, 8 around the envelope 1, there is no suggestion in either Dooleage or Labora to use such belts around an envelope that surrounds liquid-filled, impermeable ballast tubes. Accordingly, for this additional reason, applicant respectfully submits that claims 42 and 43 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Labora.

**Claims 19-21 Are Not Obvious Over
Dooleage in View of Holmberg**

Claims 19-21 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Holmberg. Claims 19-21 depend from claim 16 and thus require a plurality of independent solid-containing ballast tubes within an elongated container. Claims 20 and 21 depend from claim 19, which additionally requires the elongated container to be anchored in part by a scour apron having an anchor tube.

First, each of claims 19-21 depends from claim 16, which was not anticipated by Dooleage because Dooleage is deficient in its lack of any teaching of solids within its ballast tubes. Holmberg fails to disclose or suggest ballast tubes at all, much less putting solids into impermeable ballast tubes that contained liquid as in the Dooleage ballast tubes. Holmberg thus fails to correct the deficiency in Dooleage regarding claim 16. Therefore, claims 19-21, which depend on claim 16, are patentable under 35 U.S.C. § 103(a) over Dooleage in

view of Holmberg for the same reason that renders claim 16 patentable under 35 U.S.C. §§ 102 and/or 103(a) over Dooleage.

In addition, each of claims 19-21 requires the container to be anchored by a scour apron that has an anchor tube. Dooleage does not disclose ballast tubes filled with solid material. To the contrary, Dooleage teaches pumping water, which is a liquid, to form water filled bags. Furthermore, Dooleage does not teach the use of a scour apron as an anchor, but instead Dooleage teaches anchoring its water filled bags using anchor means 19, which comprises yet another water bag 20, but shaped like a donut and disposed inside one or both of the ballast tubes, 11, 12. See Dooleage, column 3, lines 10-17. Thus, Dooleage teaches anchoring its structure from the inside, not from outside the structure. Only through the application of the hindsight provided by applicant's disclosure can the ordinary skilled artisan derive from Holmberg the ideas of supplying solid fill material to the ballast tubes of Dooleage and using a scour apron with an anchor tube to anchor the envelope of Dooleage containing the solid-filled ballast tubes, instead of anchoring this already modified Dooleage structure by means of a water-filled, donut-shaped bag 19 as shown in Dooleage. Accordingly, claims 19-21 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Holmberg for this additional reason.

**Claims 22-24 Are Not Obvious Over
Dooleage in View of Holmberg**

Claims 22-24 were rejected under § 103(a) as unpatentable over Dooleage in view of Holmberg. Each of claims 22-24 requires pumping a

water/solids slurry into a ballast tube that is located within an elongated container. The solids provided within the ballast tubes may assist in anchoring and stabilizing the overall structure. There is no teaching or suggestion in Dooleage or Holmberg of pumping a water/solids slurry within ballast tubes that are provided within an elongated container to stabilize such a structure.

Dooleage has water-filled ballast tubes 11, 12 that are provided within a cover 13 that can be another bag. Instead of pumping a water/solids slurry into such ballast tubes 11, 12 to stabilize such a structure, a person of ordinary skill in the art, upon reviewing the Dooleage reference, would be inclined to anchor this structure using water filled bags, such as the water-filled donut-shaped bag 20 in Dooleage.

Holmberg teaches anchoring a mat 20 with anchoring pockets 22 and stabilizing the mat 20 by placing on top of mat 20 a larger-diameter, elongated stabilizer tube 24 filled with solids that is surrounded on each side by a smaller diameter, elongated control pocket 26, which is also filled with solids. Dooleage does not contemplate any such mat. Holmberg does not contemplate the use of ballast tubes in any respect. Thus, one must ask how a person of ordinary skill in the art who looked to the teachings of Dooleage and the teachings of Holmberg would be able to pick and choose elements from each one and combine them just so in order to arrive at the idea of replacing Dooleage's water-filled donut-shaped bag 20 inside its water-filled ballast tubes 11, 12 with a water/solids slurry that is pumped into Dooleage's water-filled ballast tubes that are provided within an elongated container to stabilize such a structure as required by claims

22-24. There is no suggestion to combine the teachings of Dooleage and Holmberg in the manner asserted by the Examiner other than the hindsight afforded by the applicant's specification. Applicant therefore respectfully submits that claims 22-24 are patentable under 35 U.S.C. §103(a) over Dooleage in view of Holmberg.

Claim 22 adds to the requirements of claims 23 and 24, the requirement of pumping a water/solids slurry into the elongated container as well as at least one ballast tube. This additional requirement renders even more improbable the assertion that the person of ordinary skill would derive from the teachings of Dooleage and Holmberg the specific elements that are required by claim 22 without the hindsight that is afforded by the applicant's disclosure. Applicant therefore respectfully submits that claim 22 is patentable under 35 U.S.C. §103(a) over Dooleage in view of Holmberg for this additional reason.

Claim 24 adds to the requirements of claim 23, the further requirements of pumping a water/solids slurry into the ballast tube in a two step process that starts with pumping water and then is followed by pumping a water/solids slurry into at least one ballast tube. These two additional requirements render yet more improbable the assertion that the person of ordinary skill would pick and choose from the teachings of Dooleage and Holmberg, the specific elements that are required by claim 24 without the hindsight that is afforded by the applicant's disclosure. Applicant therefore respectfully submits that claim 24 is patentable under 35 U.S.C. §103(a) over Dooleage in view of Holmberg for this further reason.

**Claim 11 Is Not Obvious
in View of Bradley, Holmberg and Dooleage**

Claims 11 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bradley in view of Holmberg, and further in view of Dooleage. Claim 12 was cancelled. Claim 11, as amended, is not obvious over Bradley in view of Holmberg and Dooleage. First, claim 11 has been amended to depend from claim 6 and therefore is patentable under 35 U.S.C. § 103(a) over Bradley in view of Holmberg for the same reasons that apply to claim 6. The teachings of Dooleage fail to overcome the deficiencies in the Bradley/Holmberg combination noted above regarding claim 6. While Dooleage discloses ballast tubes 11, 12 within a cover 13, there is no suggestion to combine this structure with a cradle tube. Without the hindsight that is afforded by the applicant's disclosure, the person of ordinary skill would not be guided in the manner that is necessary in order to be able to pick and choose from the teachings of Dooleage and Holmberg, the specific elements that must be combined just so with the teachings of Bradley in order to arrive the system that is specified by claim 11. Thus, claim 11 is not rendered obvious by the combination of Bradley, Holmberg and Dooleage, and claim 11 is patentable under 35 U.S.C. §103(a) over Bradley in view of Holmberg and Dooleage.

Moreover, claim 11 adds to the requirements of claim 6, the further requirement that filler tubes are located within a cradle tube. Neither Bradley, Holmberg nor Dooleage discloses or suggests filler tubes that are located within a cradle tube. Neither Bradley nor Holmberg discloses or suggests a filler tube.

Neither Bradley nor Dooleage discloses or suggests a cradle tube. Nor is there any suggestion in the art to insert the filler tubes 11, 12 of Dooleage into the control pocket 26 of Holmberg and provide that structure as a cradle tube adjacent the container shown in Bradley. Only the hindsight provided by applicant's disclosure would enable the skilled artisan to pick and choose various selected elements from each of these three references and combine them in precisely the way that is specified by claim 11. Thus, for this additional reason, claim 11 is not rendered obvious by the combination of Bradley, Holmberg and Dooleage, and claim 11 is patentable under 35 U.S.C. §103(a) over Bradley in view of Holmberg and Dooleage.

Claim 25 Is Not Obvious Over Dooleage and Paoluccio

Claim 25 was rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Paoluccio (U.S. Patent No. 4,555,201; hereafter "the Paoluccio patent"). Claim 25 specifies an elongated container that contains a plurality of independent ballast tubes that contain solids as fill material. Dooleage lacks any teaching of solids within its ballast tubes 11, 12. Claim 25 is not rendered obvious over Dooleage in view of Paoluccio because even though Paoluccio discloses a dike 10 that contains solids as fill material, Paoluccio only teaches that the water is always removed from the solids, if not by a drain 20, then by fluid pervious portions of the envelope 11 that is left drained of water to become the solids filled dike 10. Thus, Dooleage's lack of any teaching of solids within its ballast tubes 11, 12 is not corrected by Paoluccio, which fails to

disclose or suggest ballast tubes at all, much less putting solids into impermeable ballast tubes that retain liquid as in the Dooleage ballast tubes. Paoluccio thus fails to correct the deficiency in Dooleage regarding claim 25. Therefore, claim 25 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Paoluccio for this initial reason.

Moreover, claim 25 includes the further requirement that at least one ballast tube contains solid fill material in a lower portion of the ballast tube and a liquid in the upper portion of the ballast tube. Dooleage, as described, teaches the use of water filled bags 11, 12 inside a surrounding bag 13, and does not suggest or describe in any manner the use of solids within such bags. The deficiency of Dooleage in failing to teach the use of solids within ballast tubes is not provided in the teachings of the Pauluccio reference. Pauluccio teaches an envelope-shaped structure 11 that includes a mixture of water and soil only during the filling. As explained at column 3, lines 45-50 of Pauluccio, the water constantly drains away to leave a sediment-filled dike 10. Pauluccio fails to teach any ballast tubes. Pauluccio fails even to teach a barrier that has solids and water. The water always drains out, either through a drain 20 or through the fluid pervious portions of the envelope 11. See column 3, lines 52-55 of Pauluccio. Only with the aid of the hindsight provided by applicant's disclosure can the skilled artisan derive from Pauluccio the idea of supplying solid fill material to the impermeable ballast tubes of Dooleage. Only if one disregards the teaching of Pauluccio and relies purely on the hindsight provided by applicant's disclosure can the skilled artisan derive leaving one impermeable

ballast tube of Dooleage with part solids on the lower portion and water on the upper portion. Accordingly, applicant respectfully submits that absent the hindsight provided by applicant's disclosure, Dooleage and Pauluccio fail to render the subject matter of claim 25 obvious to the person of ordinary skill for this additional reason.

**Claims 31, 33 and 34 Are Not Obvious
Over Dooleage in View of Pauluccio**

Claims 31, 33, and 34 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Paoluccio. Claims 33 and 34 depend from claim 31. Claim 31 describes a first elongated tube having a plurality of ballast tubes within the first elongated tube. The ballast tubes are generally semi-permeable. Furthermore, fill material solids are held in position within at least one of the ballast tubes.

Dooleage teaches water filled bags that are impermeable. Furthermore, there is no teaching in Dooleage of using semi-permeable ballast tubes. See Dooleage, column 1, line 67. Pauluccio teaches a sand filled "dike" to provide a stable barrier for rising floodwaters. Neither teach solid-filled ballast tubes. Nor is there any teaching or motivation within either Dooleage or Pauluccio for replacing the water within Dooleage's impermeable ballast tubes, 11, 12, with solid materials that are inside Pauluccio's dike 10. Because the bags 11, 12 of Dooleage are water filled, such structures could not properly function if they were semi-permeable, as they would leak as taught by Pauluccio. Thus, there is no teaching of using semi-permeable ballast tubes in either of the cited references,

and in fact Dooleage teaches away from such structures. Absent the hindsight provided by applicant's disclosure, the person of ordinary skill has no suggestion to replace the impermeable ballast tubes of Dooleage filled with water with semi-permeable ballast tubes filled with solids based on Pauluccio's disclosure of a dike formed of an envelope 11 that is filled with solids and has a face 11A that is fluid pervious. Accordingly, applicant respectfully submits that claims 31, 33 and 34 are patentable under 35 U.S.C. § 103(a) over Dooleage in view of Pauluccio.

**Claims 26-30 Are Not Obvious Over Dooleage in View of
Pauluccio, and Further in View of Holmberg**

Claims 26-30 were rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Paoluccio, and further in view of Holmberg. Holmberg teaches anchoring a mat 20 with anchoring pockets 22 and stabilizing the mat 20 by placing on top of mat 20 a larger-diameter, elongated stabilizer tube 24 filled with solids that is surrounded on each side by a smaller diameter, elongated control pocket 26, which is also filled with solids. Dooleage does not contemplate any such mat. Holmberg does not contemplate the use of ballast tubes in any respect, much less within a tubular container.

Each of claims 26-30 depends from claim 25 (i.e. elongated container, independent ballast tubes, ballast tubes containing solid fill material). As Holmberg fails to include ballast tubes and fails to include ballast tubes partially filled with solids and partially with liquid, Holmberg fails to correct the deficiencies noted above in Dooleage and Paoluccio as applied to claim 25. Applicant therefore respectfully submits that Dooleage, Paoluccio and Holmberg fail to

render the subject matter of claims 26-30 obvious to the person of ordinary skill for this first reason.

Moreover, claim 26 adds to the requirements of claim 25, the further requirement of a first cradle tube positioned adjacent to the container. Neither Dooleage nor Pauluccio discloses the use of cradle tubes positioned adjacent a first continuous tubular shaped container. While Holmberg discloses the use of a control pocket 26 adjacent a tubular shaped stabilizer 24 wherein both the tubular shaped stabilizer 24 and the control pocket 26 are disposed atop an underlying mat 20 formed of water permeable geotextile material, such a disclosure fails to suggest to the skilled artisan to use a cradle tube adjacent a tubular shaped container that is not already disposed atop an underlying mat structure that is anchored by anchoring pockets 22. Nor is there is any suggestion in the art to combine the control pocket 26 of Holmberg with the container of ballast tubes shown in Dooleage. Only the hindsight provided by applicant's disclosure teaches the use of the cradle tube adjacent the tubular shaped container without the underlying mat structure that is anchored by anchoring pockets 22.

Each of claims 27-30 adds to the requirements of claim 25, the further requirement of a scour apron. Absent the hindsight of applicant's disclosure, there would be no suggestion how to combine the elongated water filled bags of Dooleage with the solid filled "dike" of Pauluccio, and a mat 20 of Holmberg, to somehow reconstruct the invention defined in claims 27-30. Dooleage teaches stabilization of the water filled bags using doughnut shaped water filled bags 19

as anchors, not a scour apron. Pauluccio teaches a dike to hold back floodwaters, and therefore stabilization in a high-energy wave environment is not a significant issue. Holmberg, on the other hand, teaches an erosion control foundation mat 20, but only with smaller diameter, solid-filled tubes 26 on either side of a larger diameter, solid-filled tube 24, but without any ballast tubes within either of the solid-filled tubes 24, 26. Without hindsight instruction provided by applicant's disclosure, the person of ordinary skill would not combine these separate structures in the manner asserted by the rejection. Applicant therefore respectfully submits that each of claims 27-30 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Pauluccio and Holmberg for this additional reason.

Claim 44 Is Not Anticipated by Cizek

Claim 44 was rejected under 35 U.S.C. § 102(b) as anticipated by US Patent No. 5,232,429 to Cizek et al. (the "Cizek patent"). Claim 44, as amended, requires helically shaping and joining the fabric by draping the fabric over a cylindrical drum and securing the spiral seam to form a tubular elongated container. The Cizek patent fails to suggest or disclose helically shaping and joining the fabric by draping the fabric over a cylindrical drum and securing the spiral seam to form a tubular elongated container. There is no such cylindrical drum in the Cizek patent. The number 34 in the Cizek patent does not refer to any cylindrical drum. As explained at column 6, lines 33-36 and column 7, lines 16-22 of the Cizek patent, the number 34 in the Cizek patent refers to one of a

pair of driving nip rollers 34, 36, which pull the fabric past the sewing machine 37 to form the spiral seam 22 . Applicant therefore respectfully submits that claim 44 is patentable under 35 U.S.C. § 102(b) over Cizek for this initial reason.

Claim 44, as amended, also requires at least one ballast tube disposed within the container. Cizek fails to disclose any ballast tubes. Applicant therefore respectfully submits that claim 44 is patentable under 35 U.S.C. § 102(b) over Cizek for this additional reason.

**Claim 32 Is Not Obvious in Light of Dooleage as Combined
with Pauluccio, in View of Cizek**

Claim 32 was rejected under 35 U.S.C. § 103(a) as unpatentable over Dooleage in view of Pauluccio, and further in view of Cizek et al. (Patent No. 5,232,429; hereinafter “the Cizek patent”). Claim 32 depends from claim 31 and thus is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Pauluccio for the same reasons as claim 31. Moreover, Cizek fails to correct the deficiencies noted in the combination of Dooleage and Pauluccio as applied to claim 31, and therefore claim 32 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Pauluccio and Cizek for this first reason. Dooleage, as previously explained, fails to suggest or disclose ballast tubes that are semi-permeable bags filled with solids and disposed within an outer container without any coating. Neither Cizek nor Pauluccio teach the use of ballast tubes at all, and there would be no motivation or suggestion in the art for using semi-permeable ballast tubes, other than a hindsight reconstruction made evident by reviewing the teachings of the present patent application.

Claim 32 adds to the requirements of claim 31, the further requirement of the first elongated tube of geotextile material being coated on the exterior surface of the elongated tube. Thus, claim 32 requires a semi-permeable ballast tube that contains solid fill material and is surrounded by an outer enclosure that has a coating. The Dooleage ballast tubes are not semi-permeable and do not contain solid fill material. The Dooleage outer cover 13 lacks any coating and is not impermeable. The Paoluccio envelope 11 does not surround ballast tubes. Paoluccio only teaches that the water is always removed from within its envelope, if not by a drain 20, then by fluid pervious portions of the envelope 11 that is left drained of water to become the solids filled dike 10. Cizek discloses applying a coating to a container that doesn't contain ballast tubes for the purpose of rendering the container water-impermeable. Thus, Paoluccio and Dooleage on the one hand and Cizek on the other hand seem to point the person of ordinary skill in different directions as to whether to apply a coating to an outer container to render it impermeable. Absent the hindsight provided by applicant's disclosure, the person of ordinary skill has no guidance how to pick and choose which elements from which references and combine them in which way to yield the invention described by claim 32. Accordingly, claim 32 is patentable under 35 U.S.C. § 103(a) over Dooleage in view of Paoluccio and Cizek for this additional reason.

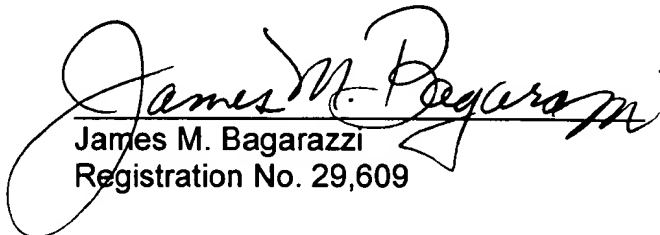
Applicant therefore respectfully requests reconsideration and reexamination of claims 1-6, 8, 11, 13-35, 37-44, as presented herein, and

examination of claims 45-77, as presented herein, and submits that these claims are in condition for allowance and should be passed to issue.

If any fee or extension of time is required to obtain entry of this Amendment, the undersigned hereby petitions the Commissioner to grant any necessary time extension and authorizes charging Deposit Account No. 04-1403 for any such fee not submitted herewith. Any excess fee submitted with this amendment should be credited to Deposit Account No. 04-1403.

The Examiner is encouraged to contact the undersigned at the Examiner's convenience to resolve any remaining issues. Applicant further requests that the Examiner execute the PTO Form 1449 that includes the Coltharp reference and the Keller reference (copies enclosed herewith), to indicate clearly that the Examiner has considered these references, and noted them for inclusion in the record.

Respectfully submitted,


James M. Bagarazzi
Registration No. 29,609

DORITY & MANNING, P.A.
P.O. Box 1449
Greenville, SC 29602
(864) 271-1592

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